

Name: \_\_\_\_\_

Date: \_\_\_\_\_

### Test: Perfect Squares, Square Roots

**Part 1: Multiple Choice:** Put the letter in the space provided.

1. \_\_\_\_\_  $11^2 =$

A) 121

B) 22

C) 222

D) 21

2. \_\_\_\_\_  $\sqrt{5}$  is about:

A) 5

B) 4

C) 9

D) 2

3. \_\_\_\_\_  $\sqrt{144}$  is

A) 72

B) 144

C) 11

D) 12

4. \_\_\_\_\_  $\sqrt{625}$  is:

A) 15

B) 25

C) 5

D) 50

5. \_\_\_\_\_ What is the side length of a square with an area of  $64 \text{ m}^2$ ?

A) 16

B)  $\sqrt{64}$

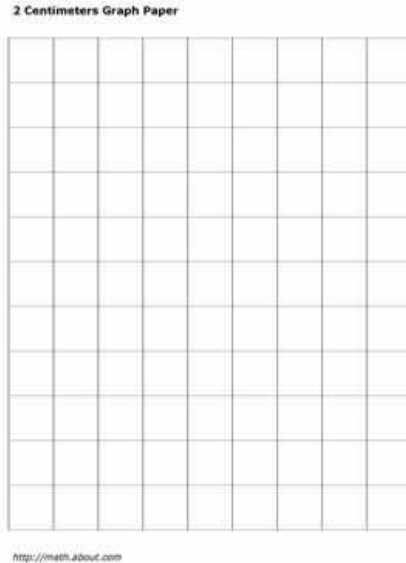
C) 4

D) 32

**Part 2:**

**Perfect squares and square roots: SHOW ALL OF YOUR WORK!!**

1. Make a drawing to show that 81 is a perfect square.



2. If the diagram were a garden and you wanted to build a fence *around* it, how much fencing would you need?

3. A number has 11 factors. Is it a perfect square? Explain your answer.

4. **Estimate** the following square roots. SHOW YOUR WORK!!

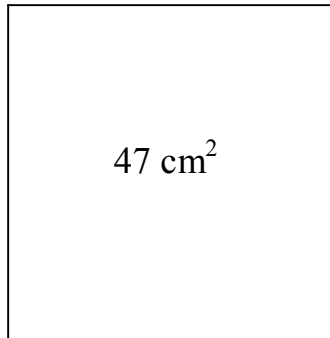
a)  $\sqrt{18} =$

b)  $\sqrt{50} =$

c)  $\sqrt{90} =$

d)  $\sqrt{139} =$

5. For the following diagram:



a) What is the length of one side of the square? Express both as number and a square root.

b) What is the perimeter of the square?

6. Order the following from LEAST to GREATEST.

$\sqrt{36}$ , 36, 4,  $\sqrt{9}$       \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

7. Estimate the square roots and place on the number line.

$\sqrt{30} =$

$\sqrt{5} =$

